**Appendix 1: Wetlands**

Wetlands as defined by the United States Fish and Wildlife Service (USFWS)**:** *Land that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, hydrophytic vegetation adapted for saturated soil conditions.*

The above quote states that all wetlands have three common denominators; 1. plants that are adapted to living under saturated conditions, 2. soils that are hydric and 3. standing water or indications of being seasonally wet when the water table is high. Wetlands are among the most important natural resources found in Virginia's landscape. Common names for wetlands are marshes, swamps, bogs, and sink holes but wetlands are not always wet and are they are not always easily identified. The broadest categories of wetlands are known as tidal and non-tidal and they share many of the same functions.

Tidal wetlands are generally inundated with water year around and subject to tidal fluctuations. Harder to identify, are non-tidal wetlands. They are often located in floodplains, adjacent to non-tidal rivers and streams but can be anywhere in the landscape. They are located throughout the entire state, and can be difficult to define because they are often forested or heavily vegetated with dense shrubs and are only inundated in the winter months when the soil is saturated with groundwater and rainwater. These wetlands develop naturally in low areas that trap and hold water.

**Wetland Functions and Values**

The physical, chemical, and biological properties of Virginia's wetlands work together performing functions that may include: storage of water, ground water recharge, sediment trapping, transformation of nutrients, and wildlife habitat. Wetlands are some of the most productive habitats on earth, providing critical habitat essential for the life-cycle of many species of wildlife, fish and aquatic organisms.

The Department of Environmental Quality (DEQ) is the lead regulatory agency in Virginia for wetlands management.

Tidal Wetlands

The 1972 Tidal Wetlands Act gave the Virginia Marine Resources Commission the responsibility for issuing tidal wetlands permits under Chapters 12 and 13 of Title 28.2 of the Code of Virginia. While Chapter 12 activities permitted by Virginia Marine Resources Commission may require a separate Virginia Water Protection permit, Chapter 13 activities only require a separate Virginia Water Protection permit if § 401 Certification is required. Thus, DEQ provides the § 401 Certification through issuing a Virginia Water Protection permit. In some instances when a U.S. Army Corps of Engineers nationwide or regional permit is also issued on the same Chapter 12 or 13 activities permitted by Virginia Marine Resources Commission, DEQ may provide the § 401 Certification through a letter agreement, thereby concurring that the U.S. Army Corps of Engineers permit conditions meet State regulatory goals, or waive the requirement for a Virginia Water Protection permit altogether.

Nontidal Wetlands

Since 1992, the Virginia Water Protection Permit Program has served as the Commonwealth's Section 401 Certification process for both tidal and nontidal impacts permitted under Section 404 of the Clean Water Act. In 2000, the General Assembly removed the dependence of the State nontidal wetlands program on the issuance of a Federal permit, thus enabling DEQ to use the Virginia Water Protection Permit Program to regulate activities in wetlands. Such activities as certain types of excavation in wetlands and fill in isolated wetlands (which may not be under Federal jurisdiction) were added to the activities already regulated through the Section 401 Certification process.
http://www.deq.virginia.gov/Programs/Water/WetlandsStreams/Regulations.aspx)

**Outdoor Recreation and Wetlands**

Due to the very nature of outdoor recreation, wetlands can usually be fully avoided when a new recreation project is developed; however, not in all cases, trail building and creating water access can have a high incident of wetland impacts. Wetland impacts, due to water access, occur whenever the shoreline and water body bottom is disturbed; therefore, it is recommended that each project be evaluated by a wetland professional to determine total amount of wetlands impacted.

Trails also have potential to impact wetlands due to their linear nature. Trails often impact wetlands when they are built in a floodplain and/or parallel to rivers and streams. One way that trail impacts can be reduced, when building in a floodplain, is to put trails on a boardwalk that is elevated above the ground. This approach protects not only the wetlands but also the trail since seasonal flooding will have less damaging effect upon the boardwalk.

Regardless of the project, a wetland professional should be contacted to determine if the plan of development would impact wetlands and work with the local officials to either redesign the project or help navigate the permitting process with the DEQ and the Corps of Engineers if wetland impacts cannot be avoided.

**DCR and Wetland protection**

Wetlands are integral to the Department of Conservation and Recreation's Natural Heritage Program's mission – to conserve Virginia's biodiversity through inventory, protection, and stewardship.

The natural diversity of wetlands – both in sheer numbers of species within individual wetlands and the great variety of wetland types – means they are important places for rare species and significant natural communities. This is reflected in the Natural Heritage's Natural Area Preserve Program, at least 40 of Virginia's 63 natural area preserves have important wetland components, supporting an assortment of rare and endangered species, such as Virginia Sneezeweed and Sensitive Joint-vetch; globally rare communities, such as Shenandoah Valley Prairie Fens; and some of the best examples of common wetland types, such as Cypress – Tupelo Swamps. Many of the wetlands on natural area preserves receive routine stewardship – largely through prescribed fire and invasive species control – in order to maintain the habitats that support rare species.

The Natural Heritage Program also provides assistance and advice to land trusts working to preserve wetlands as well as to landowners – both public and private – with maintaining and enhancing rare species habitats within wetlands. The program also works in close partnership with other agencies to identify and target the most significant wetlands for protection. One recent such effort resulted in the Virginia Wetlands Catalog, a GIS tool that provides a statewide inventory of wetlands and potential wetlands with prioritization summaries for conservation and restoration purposes.

DCR will pursue enhanced management of the commonwealth's wetland resources. DCR is working to expand the natural areas registry program, which provides voluntary non-binding protection of exemplary natural areas to include many wetland systems. DCR also will continue to provide and expand appropriate ecological management of wetlands by coordinating multi-agency exotic species eradication programs, detailed hydrologic mapping and monitoring programs, prescribed burn research and restoration of endangered ecosystems and species.